

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comm ents	Error Defin ro	Error ro
1	BRS	L1	583	calcineurin	USPAT; US - PGPUB; EPO; JPO; DERWENT	2002/10/ 8 17:30	0	0	0
2	BRS	L2	0	calcipressin	USPAT; US - PGPUB; EPO; JPO; DERWENT	2002/10/ 8 17:31	0	0	0
3	BRS	L3	0	1 same (endogenous adj inhibitor)	USPAT; US - PGPUB; EPO; JPO; DERWENT	2002/10/ 8 17:32	0	0	0
4	BRS	L4	0	csp adj 1	USPAT; US - PGPUB; EPO; JPO; DERWENT	2002/10/ 8 17:32	0	0	0

> d his

(FILE 'HOME' ENTERED AT 17:35:59 ON 18 OCT 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'  
ENTERED AT

17:36:27 ON 18 OCT 2002

L1 13784 S CALCINEURIN  
L2 26 S L1 (P) (ENDOGENOUS INHIBITOR)  
L3 6 DUPLICATE REMOVE L2 (20 DUPLICATES REMOVED)  
L4 18 S CALCIPRESSIN  
L5 144 S CSP1  
L6 0 S L5 (P) L1  
L7 16 S L4 (P) L1  
L8 4 DUPLICATE REMOVE L7 (12 DUPLICATES REMOVED)  
L9 4 S L8 NOT L3

=> log y

FILE 'HOME' ENTERED AT 17:35:59 ON 18 OCT 2002

FILE 'MEDLINE' ENTERED AT 17:36:27 ON 18 OCT 2002

FILE 'CAPLUS' ENTERED AT 17:36:27 ON 18 OCT 2002  
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=> s calcineurin  
L1 13784 CALCINEURIN

=> s 11 (p) (endogenous inhibitor)  
L2 26 L1 (P) (ENDOGENOUS INHIBITOR)

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=> duplicate remove l2
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L2
L3          6 DUPLICATE REMOVE L2 (20 DUPLICATES REMOVED)
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=> d 13 1-6 ibib abs

L3 ANSWER 1 OF 6 MEDLINE DUPLICATE 1  
ACCESSION NUMBER: 2002183217 MEDLINE  
DOCUMENT NUMBER: 21895837 PubMed ID: 11786544  
TITLE: Targeted inhibition of calcineurin in pressure-overload cardiac hypertrophy. Preservation of systolic function.  
AUTHOR: Hill Joseph A; Rothermel Beverly; Yoo Ki-Dong; Cabuay Barry; Demetroulis Elaine; Weiss Robert M; Kutschke William; Bassel-Duby Rhonda; Williams R Sanders  
CORPORATE SOURCE: ~~Department of Internal Medicine, University of Iowa College of Medicine, Iowa City, Iowa 52242-1081, USA.~~  
CONTRACT NUMBER:  
SOURCE: HL03908 (NHLBI)  
JOURNAL OF BIOLOGICAL CHEMISTRY, (2002 Mar 22) 277 (12)  
10251-5.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200204

MCIP1 may also regulate transcriptional shifts of myocyte transformation. It is not known whether overexpression of MCIP1, a recently described \*\*\*endogenous\*\*\* \*\*\*inhibitor\*\*\* of \*\*\*calcineurin\*\*\*, impacts the hypertrophic response to calcineurin inhibitors and other agents that induce the transition from a quiescent to a proliferative state.

of hemodynamic stress are unknown. Transgenic mice expressing a human cDNA encoding hMCIP1 in the myocardium were subjected to thoracic aortic banding. Transgenic mice and wild type littermates tolerated pressure overload equally well. Wild type mice developed left ventricular hypertrophy, but the hypertrophic response in transgenics was significantly blunted. An isoform of MCIP1 transcript was up-regulated by pressure stress, whereas MCIP2 transcript was not. Expression patterns of fetal genes were differentially regulated in banded MCIP1 hearts compared with wild type. Echocardiography performed at 3 weeks and 3 months revealed preservation of both left ventricular size and systolic function in banded MCIP1 mice despite the attenuated hypertrophic response. These data demonstrate attenuation of hypertrophic transformation when \*\*\*calcineurin\*\*\* is inhibited by MCIP1. Further, these data suggest that activation of hypertrophic marker genes may not be directly dependent on \*\*\*calcineurin\*\*\* activity. Finally, they demonstrate that ventricular performance is preserved despite attenuation of compensatory hypertrophy.

L3 ANSWER 2 OF 6 MEDLINE DUPLICATE 2  
ACCESSION NUMBER: 2002397693 MEDLINE  
DOCUMENT NUMBER: 22133761 PubMed ID: 12114545  
TITLE: Calpain-dependent cleavage of cain/cabin1 activates calcineurin to mediate calcium-triggered cell death.  
AUTHOR: Kim Min-Jung; Jo Dong-Gyu; Hong Gil-Sun; Kim Byung Ju; Lai Michael; Cho Dong-Hyung; Kim Ki-Woo; Bandyopadhyay Arun; Hong Yeon-Mi; Kim Do Han; Cho Chunghee; Liu Jun O; Snyder Solomon H; Jung Yong-Keun  
CORPORATE SOURCE: Department of Life Science, Kwangju Institute of Science and Technology, 1 Oryong-dong, Puk-gu, Kwangju 500-712, Korea.  
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (2002 Jul 23) 99 (15) 9870-5.  
Journal code: 7505876. ISSN: 0027-8424.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200209  
ENTRY DATE: Entered STN: 20020731  
Last Updated on STN: 20020906  
Entered Medline: 20020904  
AB Cain/cabin1 is an \*\*\*endogenous\*\*\* \*\*\*inhibitor\*\*\* of \*\*\*calcineurin\*\*\* (Cn), a calcium-dependent serine/threonine phosphatase involved in various cellular functions including apoptosis. We show here that during apoptosis cain/cabin1 is cleaved by calpain at the carboxyl terminus to generate a cleavage product with a molecular mass of 32 kDa as a necessary step leading to Cn-mediated cell death. Mouse cain/cabin1 was identified from a thymus cDNA library by an in vitro substrate-screening assay with calpain. Exposure of Jurkat cells to the calcium ionophore, induced cain/cabin1 cleavage and cell death, accompanied by activation of calpain and Cn. The calpain inhibitors, calpeptin and ZLDY, suppressed both -induced cain/cabin1 cleavage and Cn activation, indicating that Cn activation and cain/cabin1 cleavage are calpain-dependent. Expression of cain/cabin1 or a catalytically inactive Cn mutant [CnA beta(2)(1-401/H160N)] and treatment with FK506 reduced -induced cell death. In vitro calpain cleavage and immunoprecipitation assays with deletion mutants of cain/cabin1 showed that cleavage occurred in the Cn-binding domain of cain/cabin1, indicating that the cleavage at its C terminus by calpain prevented cain/cabin1 from binding to Cn. In addition, in vitro binding assays showed that cain/cabin1 bound to the Cn B-binding domain of Cn A. Taken together, these results indicate that calpain cleaves the \*\*\*calcineurin\*\*\* -binding domain of cain/cabin1 to

DOCUMENT NUMBER: 2003-00000000000000000000000000000000  
TITLE: Thapsigargin induced apoptosis involves Cabin1-MEF2-mediated induction of Nur77.  
AUTHOR: Liu W; Youn H D; Liu J C  
JOURNAL: *Journal of Biological Chemistry*  
PUBLISHER: American Society for Biochemistry and Molecular Biology, Inc.

SOURCE: 02139, USA.  
PUB. COUNTRY: EUROPEAN JOURNAL OF IMMUNOLOGY, (2001 Jun) (6) 1757-64.  
DOCUMENT TYPE: Journal code: 1273201. ISSN: 0014-2980.  
LANGUAGE: Germany: Germany, Federal Republic of  
FILE SEGMENT: Journal; Article; (JOURNAL ARTICLE)  
Priority Journals  
ENTRY MONTH: English  
200108  
ENTRY DATE: Entered STN: 20010813  
Last Updated on STN: 20010813  
Entered Medline: 20010809

AB Thapsigargin (TG), which inhibits endoplasmic reticulum-dependent Ca(2+) -ATPase and thereby increases cytosolic Ca(2+), has been reported to cause apoptosis in T lymphocytes another cell types. In this study, we investigated the molecular mechanisms that are involved in the apoptosis induced by TG in T cell hybridomas. Exposure to TG results in rapid induction of the orphan steroid receptor, Nur77, accompanied by apoptosis of T cell hybridomas. The expression of Nur77 in response to TG treatment is sensitive to cyclosporin A, implicating that activation of \*\*\*calcineurin\*\*\* is necessary for Nur77 expression. The TG-induced Nur77 expression is also inhibited by overexpression of Cabin1, an \*\*\*endogenous\*\*\* \*\*\*inhibitor\*\*\* of \*\*\*calcineurin\*\*\* and a corepressor of the transcription factor MEF2, suggesting that MEF2 activation is required for Nur77 expression. These results suggest that induction of Nur77 expression and apoptosis by TG are mediated by the same signaling pathways that are involved in T cell receptor-mediated thymocyte apoptosis, including the \*\*\*calcineurin\*\*\* pathway and Cabin1-MEF2 pathway.

L3 ANSWER 4 OF 6 MEDLINE DUPLICATE 4  
ACCESSION NUMBER: 2001382225 MEDLINE  
DOCUMENT NUMBER: 21152920 PubMed ID: 11231093  
TITLE: Dscr1, a novel \*\*\*endogenous\*\*\* \*\*\*inhibitor\*\*\* of \*\*\*calcineurin\*\*\* signaling, is expressed in the primitive ventricle of the heart and during neurogenesis.  
AUTHOR: Casas C; Martinez S; Pritchard M A; Fuentes J J; Nadal M; Guimera J; Arbones M; Florez J; Soriano E; Estivill X; Alcantara S  
CORPORATE SOURCE: Down Syndrome Research Group, Medical and Molecular Genetics Center - IRO, Avia. de Castelldefels, km. 2.7, L'Hospitalet de Llobregat, 08907, Barcelona, Spain.  
SOURCE: MECHANISMS OF DEVELOPMENT, (2001 Mar) 101 (1-2) 289-92.  
Journal code: 9101218. ISSN: 0925-4773.  
PUB. COUNTRY: Ireland  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200107  
ENTRY DATE: Entered STN: 20010709  
Last Updated on STN: 20010709  
Entered Medline: 20010709

AB We have demonstrated that DSCR1 acts as a negative regulator of calcineurin-mediated signaling and that its transcript is overexpressed in the Down syndrome (DS) fetal brain. To evaluate the possible involvement of DSCF1 in DS, we have cloned the mouse gene and analyzed its expression pattern in the central nervous system (CNS). Early expression of Dscr1 is detected mainly in the heart tube and in the CNS in rhombomere 4 and the prepectum. From embryonic day 14.5 onwards, Dscr1 is widely distributed in the CNS but becomes more restricted as the brain matures. We confirmed its neuronal expression pattern in the adult, preferentially in Purkinje and pyramidal cells, by double labeling with glial fibrillary acidic protein. We also show that although Dscr1 is present in trisomy in the Ts65Dn

in the patients.

L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002-659533 CAPLUS

DOCUMENT NUMBER: 2002-659533 CAPLUS

FILE NUMBER: 2002-659533 CAPLUS

(Cain) to rat chromosome band 20p12 by fluorescence in situ hybridization

Kim, H.; Jung, Y. K.; Jo, D. G.; Park, S. H.

Institute of Human Genetics, Department of Anatomy,  
Korea University College of Medicine, Seoul, 136-705,  
S. Korea

AUTHOR(S):  
CORPORATE SOURCE:

SOURCE: Cytogenetics and Cell Genetics (2000), 89(3-4),  
236-237

PUBLISHER: S. Karger AG  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB \*\*\*Calcineurin\*\*\* inhibitor is a most potent \*\*\*endogenous\*\*\* \*\*\*inhibitor\*\*\* of \*\*\*calcineurin\*\*\*, and in its physiol. role is suspected to provide a docking site for \*\*\*calcineurin\*\*\* in its inactive form. Here we report the mapping of rat gene Cain to chromosome band 20p12 using fluorescence in situ hybridization.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 6 MEDLINE DUPLICATE 5

ACCESSION NUMBER: 2000062818 MEDLINE

DOCUMENT NUMBER: 20062818 PubMed ID: 10593895

TITLE: Inhibition of calcineurin phosphatase activity by a calcineurin B homologous protein.

AUTHOR: Lin X; Sikkink R A; Rusnak F; Barber D L

CORPORATE SOURCE: Department of Stomatology, University of California, San Francisco, California 94143, USA.

CONTRACT NUMBER: DK40259 (NIDDK)

GM 47413 (NIGMS)

GM46865 (NIGMS)

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Dec 17) 274 (51)  
36125-31.

Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200001

ENTRY DATE: Entered STN: 20000204

Last Updated on STN: 20000204

Entered Medline: 20000127

AB \*\*\*Calcineurin\*\*\*, a Ca(2+)/calmodulin-stimulated protein phosphatase, plays a key role in T-cell activation by regulating the activity of NFAT (nuclear factor of activated T cells), a family of transcription factors required for the synthesis of several cytokine genes. \*\*\*Calcineurin\*\*\* is the target of the immunosuppressive drugs cyclosporin A and FK506 complexed with their cytoplasmic receptors cyclophilin and FKBP12, respectively. In this study we report that \*\*\*calcineurin\*\*\* is also the target of a recently identified Ca(2+)-binding protein, CHP (for

\*\*\*calcineurin\*\*\* homologous protein), which shares a high degree of homology with the regulatory B subunit of \*\*\*calcineurin\*\*\* and with calmodulin. In Jurkat and HeLa cells, overexpression of CHP specifically impaired the nuclear translocation and transcriptional activity of NFAT but had no effect on AP-1 transcriptional activity and only a small (<25%) inhibitory effect on the transcriptional activity of NFκB. Further study indicated that CHP inhibits \*\*\*calcineurin\*\*\* activity. In cells overexpressing CHP, the phosphatase activity of immunoprecipitated

\*\*\*calcineurin\*\*\* was inhibited by approximately 50%; and in a reconstituted assay, the activity of purified \*\*\*calcineurin\*\*\* was inhibited up to 97% by the addition of purified recombinant CHP in a dose dependent manner. Moreover, prolonged activation of Jurkat cells was

=> d his

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT  
17:36:27 ON 18 OCT 2002

L1 13784 S CALCINEURIN  
L2 26 S L1 (P) (ENDOGENOUS INHIBITOR)  
L3 6 DUPLICATE REMOVE L2 (20 DUPLICATES REMOVED)

=> s calcipressin  
L4 18 CALCIPRESSIN

=> s cspl  
L5 144 CSP1

=> s 15 (p) l1  
L6 0 L5 (P) L1

=> s 14 (p) l1  
L7 16 L4 (P) L1

=> duplicate remove l7  
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'  
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
PROCESSING COMPLETED FOR L7  
L8 4 DUPLICATE REMOVE L7 (12 DUPLICATES REMOVED)

=> s 18 not l3  
L9 4 L8 NOT L3

=> d 19 1-4 ibib abs

L9 ANSWER 1 OF 4 MEDLINE  
ACCESSION NUMBER: 2002300827 MEDLINE  
DOCUMENT NUMBER: 22035335 PubMed ID: 12039863  
TITLE: The DSCR1 (Adapt78) isoform 1 protein \*\*\*calcipressin\*\*\*  
1 inhibits \*\*\*calcineurin\*\*\* and protects against acute  
calcium-mediated stress damage, including transient  
oxidative stress.  
AUTHOR: Ermak Gennady; Harris Cathryn D; Davies Kelvin J A  
CORPORATE SOURCE: Ethel Percy Andrus Gerontology Center, and Division of  
Molecular and Computational Biology, University of Southern  
California, Los Angeles, California 90089-0191, USA.  
CONTRACT NUMBER: AG16256 (NIA)  
SOURCE: FASEB JOURNAL, (2002 Jun) 16 (8) 814-24.  
Journal code: 8804484. ISSN: 1530-6860.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200206  
ENTRY DATE: Entered STN: 20020604  
Last Updated on STN: 20020611  
Entered Medline: 20020607

AB Although DSCR1 (Adapt78) has been associated with successful adaptation to oxidative stress and calcium stress and with devastating diseases such as Alzheimer's and Down syndrome, no rationale for these apparently contradictory findings has been tested. In fact, DSCR1 (Adapt78) has not yet been proved to provide protection against acute oxidative stress or calcium stress. We have addressed this question using cross-adaptation to H2O2 and the calcium ionophore A23187, stable DSCR1 (Adapt78) transfection and overexpression in hamster HA-1 cells, 'tet-off' regulated DSCR1 (Adapt78) isoform 1 transgene expression in human PC-12 cells, and DSCR1 (Adapt78) antisense oligonucleotides to test the ability of the DSCR1 (Adapt78) protein product \*\*\*calcipressin\*\*\* 1 /a \*\*\*calcineurin\*\*\*

Abstract: DSCR1 (Adapt78) has been implicated in the pathophysiology of Alzheimer's disease and Down syndrome. It has been proposed that DSCR1 may play a role in adaptation to oxidative stress and calcium stress. This study was undertaken to determine the mechanism(s) by which DSCR1 may contribute to adaptation to stress. Our results indicate that cells may transiently use DSCR1 as an adaptant to both oxidative and calcium stress. DSCR1 may provide short-term protection against acute oxidative stress and other calcium mediated stresses whereas chronic overexpression can be associated with life-threatening diseases.

L9 ANSWER 2 OF 4 MEDLINE  
ACCESSION NUMBER: 2000436191 MEDLINE  
DOCUMENT NUMBER: 20359261 PubMed ID: 10899116  
TITLE: Identification and characterization of a highly conserved  
      \*\*\*calcineurin\*\*\* binding protein, CBP1/  
      \*\*\*calcipressin\*\*\* , in Cryptococcus neoformans.  
AUTHOR: Gorlach J; Fox D S; Cutler N S; Cox G M; Perfect J R;  
      Heitman J  
CORPORATE SOURCE: Departments of Genetics, Medicine, Microbiology,  
      Pharmacology and Cancer Biology, and The Howard Hughes  
      Medical Institute, Duke University Medical Center, Durham,  
      NC 27710, USA.  
CONTRACT NUMBER: ST32AI07392 (NIAID)  
      RO1AI39115 (NIAID)  
      RO1AI42159 (NIAID)  
+  
SOURCE: EMBO JOURNAL, (2000 Jul 17) 19 (14) 3618-29.  
      Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200009  
ENTRY DATE: Entered STN: 20000928  
            Last Updated on STN: 20000928  
            Entered Medline: 20000918

AB Calcineurin is the conserved target of the immunosuppressants cyclosporin A and FK506. Using the yeast two-hybrid system, we identified a novel calcineurin binding protein, CBP1, from the pathogenic fungus *Cryptococcus neoformans*. We show that CBP1 binds to calcineurin in vitro and in vivo, and FKBP12-FK506 inhibits CBP1 binding to calcineurin. *Cryptococcus neoformans* cbp1 mutant strains exhibit modest defects in growth under stress conditions and virulence, similar to but less severe than the phenotypes of calcineurin mutants. *Saccharomyces cerevisiae* mutants lacking the CBP1 homolog RCN1 are, like calcineurin mutants, sensitive to lithium cation stress. CBP1 shares a central peptide sequence motif, SPPxSPP, with related proteins in *S.CEREVIAE*, *Schizosaccharomyces pombe*, *Drosophila melanogaster*, *Caenorhabditis elegans* and humans, and peptides containing this motif altered calcineurin activity in vitro. Interestingly, the human CBP1 homolog DSCR1 is encoded by the Down's syndrome candidate region interval on chromosome 21, is highly expressed in the heart and central nervous system, and may play a role in calcineurin functions in heart development, neurite extension and memory.

L9 ANSWER 3 OF 4 MEDLINE  
ACCESSION NUMBER: 2000386788 MEDLINE  
DOCUMENT NUMBER: 20347037 PubMed ID: 10887154  
TITLE: A conserved family of calcineurin regulators.  
AUTHOR: Kingsbury T J; Cunningham K W  
CORPORATE SOURCE: Department of Biology, Johns Hopkins University, Baltimore,  
      MD 21218, USA.  
CONTRACT NUMBER: GM53082 (NIGMS)  
SOURCE: GENES AND DEVELOPMENT, (2000 Jul 1) 14 (13) 1595-604.  
      Journal code: 8711660. ISSN: 0890-9369.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200008  
ENTRY DATE: Entered STN: 20000818  
            Last Updated on STN: 20000818  
            Entered Medline: 20000804

: the yeast protein Pcn1p is the human homolog BSCPI or DSCR1. It mediates two independent functions of \*\*\*calcineurin\*\*\* in yeast: The activation of the transcription factor Tcn1p and the inhibition of the  $Mg^{2+}$ -Ca  $^{2+}$  exchanger Vac1p. Purified recombinant Pcn1p and BSCPI bound

induced Rcnlp expression, suggesting that Rcnlp operates as an endogenous feedback inhibitor of \*\*\*calcineurin\*\*\*. Surprisingly, rcnl null mutants exhibited phenotypes similar to those of Rcnlp-overexpressing cells. This effect may be due to lower expression of \*\*\*calcineurin\*\*\* in rcnl mutants during signaling conditions. Thus, Rcnlp levels may fine-tune \*\*\*calcineurin\*\*\* signaling in yeast. The structural and functional conservation between Rcnlp and DSCR1 suggests that the mammalian Rcnlp-related proteins, termed \*\*\*calcipressins\*\*\*, will modulate \*\*\*calcineurin\*\*\* signaling in humans and potentially contribute to disorders such as Down Syndrome.

L9 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:642908 CAPLUS

TITLE: Regulation of \*\*\*calcineurin\*\*\* signaling in *saccharomyces cerevisiae* by sphingosine-1-phosphate and \*\*\*calcipressins\*\*\*

AUTHOR(S): Birchwood, Christine Jo-Anne

CORPORATE SOURCE: Johns Hopkins Univ., Baltimore, MD, USA

SOURCE: (2002) 165 pp. Avail.: UMI, Order No. DA3028234

DOCUMENT TYPE: From: Diss. Abstr. Int., B 2002, 62(10), 4311

LANGUAGE: Dissertation

AB Unavailable English

=> d his

(FILE 'HOME' ENTERED AT 17:35:59 ON 18 OCT 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 17:36:27 ON 18 OCT 2002

L1 13784 S CALCINEURIN

L2 26 S L1 (P) (ENDOGENOUS INHIBITOR)

L3 6 DUPLICATE REMOVE L2 (20 DUPLICATES REMOVED)

L4 18 S CALCIPRESSIN

L5 144 S CSP1

L6 0 S L5 (P) L1

L7 16 S L4 (P) L1

L8 4 DUPLICATE REMOVE L7 (12 DUPLICATES REMOVED)

L9 4 S L8 NOT L3

=> log y

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